

Abstract of the Disclosure

The present invention describes a novel methodology for a direct communication between a memory module and a processor of an electronic device (e.g., a mobile phone) using a fast non-volatile random access memory (NVRAM) provided in that memory module. New NVRAM technologies make it possible to have a single memory unit supporting a baseband operation of the electronic device such as the mobile phone. This is possible because NVRAMs are non-volatile (no need for a separate NOR) and fast (equivalent to a DRAM speed). This invention defines ways to connect the fast NVRAM to a baseband communication line through an existing mobile double data rate (DDR) interface. The invention also demonstrates flexibility and extended capabilities of the NVRAM approach by using the NVRAMs in combination with additional optional components such as a mass memory, a dynamic random access memory (DRAM) and an application-specific integration circuit.